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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/029,172	<b>Applicant(s)</b> WATSON ET AL.	
	<b>Examiner</b> Farzana E. Hossain	<b>Art Unit</b> 2623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 4 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group II in the reply filed on 4-12-06 is acknowledged. The restriction was reconsidered and Claims 1-20 will not be restricted.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show Figure 1, 102, 104, 114, 106, 112, Figure 2, 220, 218 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings should be properly labeled or detailed.

### ***Specification***

3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant has disclosed the set top box only in the Abstract. The content of the Abstract should also include subject matter found in the disclosure and the newly added claims.

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

A Set Top Box with Firewall Analyzing Received Information and Device

Analyzing Resource Information related to the Set Top Box.

Applicant should use the suggestion as a guideline and make appropriate corrections to the title to reflect the entire invention.

### ***Claim Objections***

5. Claim 13 is objected to because of the following informalities: The claim recites "the program information". The Office assumes "the program information" to be – program information--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification discloses a firewall that is associated with the set top box and its motherboard. The specification does not disclose a device, which is not a set top box, to further comprise a firewall.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claim 1-3, 6, 18-20 is rejected under 35 U.S.C. 102(e) as being anticipated by Feigen et al (US 2002/0138554 and hereafter referred to as "Feigen").

Regarding Claim 1, Feigen discloses a device or network host (Page 1, paragraph 0008) comprising: a port or place of access to the network host by remote

devices or set top boxes (STB) via a network (Page 1, paragraph 0008-0009).

Microsoft's Computer Dictionary (5<sup>th</sup> edition) defines port as an interface through which data is transferred between a computer and other device, a network or a direct connection to another computer. Feigen discloses the network host receiving resource information or hash value related to resources (Page 1, paragraph 0008, Figure 2, 210) associated with a STB (Page 1, paragraph 0010), a database storing configuration information for the STB (Page 1, paragraph 0011); and the network host comparing the resource information or the hash value of the secure software integrity verification technique, which would necessarily include a processor as the process is performed (Page 2, paragraph 0016); and when the resource information or hash value obtained from the remote device differs from the configuration information, detecting unauthorized modifications to the STB (Page 2, paragraph 0016).

Regarding Claim 18, Feigen discloses a method or technique (Page 1, paragraph 0010) comprising: initiating communicating between a STB or remote device (Figure 2, 204); receiving resource information or hash value related to resources associated with STB (Figure 2, 210); comparing the resource information (hash value) to configuration information (hash value) (Figure 2, 212) stored in the database (Page 1, paragraph 0011); and detecting unauthorized modifications to the STB when the hash values are different or configuration information and resource information differ (Page 2, paragraph 0016).

Regarding Claims 2 and 20, Feigen discloses all the limitations of Claims 1 and 18 respectively. Feigen discloses the host reconciles discrepancies between the host

and the STB or fixing the code of the software at the STB or terminating the remote device's access to services (Page 2, paragraph 0016) or communicating operating instructions of the software to the STB.

Regarding Claim 3, Feigen discloses all the limitations of Claim 1. Feigen disclose the host, which would necessarily include a processor to perform the process of the determining hash values, causes data to be communicated to the STB as a result of the process (Page 2, paragraph 0016).

Regarding Claim 6, Feigen discloses all the limitations of Claim 1. Feigen disclose the STB determines the hash value of the resource information (Page 2, paragraph 0010) and transmits the hash value to the network host to be processed (Page 2, paragraph 0016). It is necessarily includes the STB comprising a remote resource manager as the STB or remote device manages the resources via performing a hash function and receiving instructions.

Regarding Claim 19, Feigen discloses all the limitations of Claim 18. Feigen discloses communicating data from network host to STB (Page 2, paragraph 0016).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.



11. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feigen in view of Kalajan (US 6,202,156 and hereafter referred to as "Kalajan").

Regarding Claim 4, Feigen discloses all the limitations of Claim 1. Feigen discloses receiving resource information related to resources associated with a STB (Figure 2). Feigen is silent on a firewall capable of analyzing the resource information or information received from clients. Kalajan discloses a client server system, which allows communication between a client and a server (Figure 1, 20, 40). Kalajan discloses a device or server (Figure 1, 40) with a port (Figure 1, 42) and a firewall (Figure 1, 48) and the firewall analyzes or filters communications or packets received from the client (Column 4, lines 32-53). Therefore, it would have been obvious at the time the invention was made to Shintani to include a firewall (Figure 1, 42) analyzes or filters communications or packets received from the client (Column 4, lines 32-53) as taught by Kalajan in order to so to prevent unauthorized access (Column 1, lines 16-32) as disclosed by Kalajan.

Regarding Claim 5, Feigen and Kalajan disclose all the limitations of Claim 4. Kalajan discloses the firewall is logically disposed between the port and other components associated with the device (Figure 1, 42, 48, 46).

12. Claims 7-10, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani et al (US 2002/0095687 and hereafter referred to as "Shintani") in view of Coss et al (US 6,170,012 and hereafter referred to as "Coss").

Regarding Claim 7, Shintani discloses a set top box (STB) (Figure 1, 22) comprising: a first port or a coaxial cable is connected to a cable connector (Pages 1-2, paragraph 0016, Figure 1, 20, 22) or any transmission medium disclosed such as satellite communication system would necessarily include a port or place of access to a device which interfaces with the STB (Pages 1-2, paragraph 0016, Figure 1, 20, 22). Microsoft's Computer Dictionary (5<sup>th</sup> edition) defines port as an interface through which data is transferred between a computer and other device, a network or a direct connection to another computer. Shintani discloses the STB can interface with a second network such as DSL to connect to Internet, which necessarily includes a second port (Page 2, paragraph 0021) and receiving information from the second communication network (Page 2, paragraph 0021). Shintani discloses a tuner (Figure 2, 104) in communication with the first communications network (Figure 2) and capable of selecting a program or which receives a video signal from cable or satellite sources necessarily tunes to a program selected by a user (Page 1-3, paragraph 0016, paragraph 0023). Shintani is silent on a firewall which is in communications with a second port and the firewall capable of receiving communications with a second port and capable of filtering the information received from the second communications network.

Coss discloses a user site connected to the Internet via a firewall processor (Figure 2, 211). Coss discloses that a firewall can be resident in a STB (Column 2, lines 54-57, Column 10, lines 20-24). Coss discloses that the user in communication with the Internet (Column 10, lines 25-27), which would include that the STB interfaces to the

Internet or necessarily includes a port. It is necessarily included that the firewall resident in the STB to receive communications from the port. Coss discloses that the firewall is capable of filtering information received from the Internet (Figure 4, Column 5, lines 36-50). Therefore, it would have been obvious at the time the invention was made to Shintani to include a firewall in communication with the STB's interface to the Internet (Column 2, lines 54-57, Column 10, lines 20-24), to necessarily receive communications from the STB's interface and to filter received information (Column 5, lines 36-50) as taught by Coss in order to facilitate parental control of Internet of video access in the home (Column 10, lines 25-27) as disclosed by Coss.

Regarding Claim 13, Shintani discloses a set top box (STB) (Figure 1, 22) comprising: a first port or a coaxial cable is connected to a cable connector (Pages 1-2, paragraph 0016, Figure 1, 20, 22) or any transmission medium disclosed such as satellite communication system would necessarily include a port or place of access to a device which interfaces with the STB (Pages 1-2, paragraph 0016, Figure 1, 20, 22). Microsoft's Computer Dictionary (5<sup>th</sup> edition) defines port as an interface through which data is transferred between a computer and other device, a network or a direct connection to another computer. Shintani discloses the STB can interface with a second network such as DSL to connect to Internet, which necessarily includes a second port (Page 2, paragraph 0021) and receiving information from the second communication network (Page 2, paragraph 0021). Shintani discloses a tuner (Figure 2, 104) in communication with the first communications network (Figure 2) and capable of selecting a program or which receives a video signal from cable or satellite sources

necessarily tunes to a program selected by a user (Page 1-3, paragraph 0016, paragraph 0023) and at least one disk drive capable of storing program information (Page 2, paragraph 0018). Shintani is silent on a firewall, which is in communications with a second port and the firewall capable of receiving communications with a second port and capable of analyzing the information received from the second communications network.

Coss discloses a user site connected to the Internet via a firewall processor (Figure 2, 211). Coss discloses that a firewall can be resident in a STB (Column 2, lines 54-57, Column 10, lines 20-24). Coss discloses that the user in communication with the Internet (Column 10, lines 25-27), which would include that the STB interfaces to the Internet or necessarily includes a port. It is necessarily included that the firewall resident in the STB to receive communications from the port. Coss discloses that the firewall is capable of analyzing or filtering information received from the Internet (Figure 4, Column 5, lines 36-50). Therefore, it would have been obvious at the time the invention was made to Shintani to include a firewall in communication with the STB's interface to the Internet (Column 2, lines 54-57, Column 10, lines 20-24), to necessarily receive communications from the STB's interface and to analyze or filter received information (Column 5, lines 36-50) as taught by Coss in order to facilitate parental control of Internet of video access in the home (Column 10, lines 25-27) as disclosed by Coss.

Regarding Claim 8, Shintani and Coss disclose all the limitations of Claim 7. Coss discloses packet filtering (Column 5, lines 36-50).

Regarding Claim 9, Shintani and Coss disclose all the limitations of Claim 7. Coss discloses the firewall including a proxy service (Column 8, lines 57-67, Column 9, lines 1-26, Figure 10A, Figure 10B).

Regarding Claim 10, Shintani and Coss disclose all the limitations of Claim 7. Coss discloses the firewall includes a stateful inspection (Column 5, lines 36-50).

Regarding Claim 14, Shintani and Coss disclose all the limitations of Claim 13. Shintani discloses an MPEG decoder (Figure 2, 122).

13. Claims 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani in view of Coss as applied to claim 7 above, and further in view of del Val et al (US 6,128,653 and hereafter referred to as "Val").

Regarding Claims 11, Shintani and Coss disclose all the limitations of Claim 7. Coss discloses that the firewall is resident in the STB (Column 10, lines 20-24). Coss discloses that the firewall analyzes data arriving in communications protocols such as Internet protocol (IP), transmission control protocol (TCP) or universal datagram protocol (UDP) (Column 5, lines 59-64). Shintani and Coss are silent on firewall capable of analyzing information formatted in a communications protocol. Val discloses a system in which client computer requests information from a server (Figure 1). Val discloses that the firewall can block protocols transmitted from the server to the client computer (Column 5, lines 13-15, Figure 4, Column 8, lines 45-49), which reads on the firewall analyzing information formatted in the protocol. Therefore, it would have been obvious at the time the invention was made to one of ordinary skill in the art to Shintani

in view of Coss the firewall capable of analyzing information formatted in a communications protocol (Column 5, lines 13-15, Figure 4, Column 8, lines 45-49) as taught by Val in order to improve communications in client server architectures (Column 1, lines 53-58) as disclosed by Val.

14. Claims 12, 15-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani in view of Coss as applied to claim 7 and 13 above, and further in view of Feigen.

Regarding Claims 12, Shintani and Coss disclose all the limitations of Claim 7. Shintani discloses that the STB can receive information from service provider headend via DSL or modem over the Internet or the second communication network (Page 2, paragraph 0021). Shintani and Coss are silent on the STB comprising a remote resource manager (RRM) and that the RRM is capable of receiving instructions. Feigen discloses a STB or remote device (Page 1, paragraph 0009), which receives communications from a network host (Figure 2, 204). Feigen discloses that the STB performs a secure software integrity verification technique on its software (Figure 2, 206) and the remote device is capable of receiving instructions from the network host (Page 2, paragraph 0016), which would necessarily include a remote resource manager. Feigen discloses the host notifies the remote device to reconcile discrepancies between the host and the STB or fixing the code of the software at the STB or terminating the remote device's access to services (Page 2, paragraph 0016) or communicating operating instructions of the software to the STB. Therefore, it would

have been obvious at the time the invention was made to one of ordinary skill in the art to Shintani in view of Coss STB is comprises a remote resource manager capable of receiving instructions from a network from the cable headend (Page 2, paragraph 0016) as taught by Feigen in order to mitigate unauthorized tampering of the system (Page 1, paragraph 0003) as disclosed by Feigen.

Regarding Claims 15, Shintani and Coss disclose all the limitations of Claim 13. Shintani discloses that the STB can receive information from service provider headend via DSL or modem over the Internet or the second communication network (Page 2, paragraph 0021). Shintani and Coss are silent on the STB comprising RRM. Feigen discloses a STB or remote device (Page 1, paragraph 0009), which receives communications from a network host (Figure 2, 204). Feigen discloses that the STB performs a secure software integrity verification technique on its software (Figure 2, 206) and the remote device is capable of receiving instructions from the network host (Page 2, paragraph 0016). Feigen discloses the host notifies the remote device to reconcile discrepancies between the host and the STB or fixing the code of the software at the STB or terminating the remote device's access to services (Page 2, paragraph 0016) or communicating operating instructions of the software to the STB. It is necessarily includes the STB comprising a remote resource manager as the STB or remote device manages the resources via performing a hash function and receiving instructions. Therefore, it would have been obvious at the time the invention was made to one of ordinary skill in the art to Shintani in view of Coss STB is comprises a remote resource manager capable (Figure 2, Page 2, paragraph 0016) as taught by Feigen in

order to mitigate unauthorized tampering of the system (Page 1, paragraph 0003) as disclosed by Feigen.

Regarding Claim 16, Shintani, Coss and Feigen discloses all the limitations of Claim 15. Feigen discloses the host notifies the remote device to reconcile discrepancies between the host and the STB or fixing the code of the software at the STB or terminating the remote device's access to services (Page 2, paragraph 0016) or modifying a configuration of the STB.

Regarding Claim 17, Shintani, Coss and Feigen discloses all the limitations of Claim 15. Feigen discloses the RRM is capable of sending information regarding resources associated with the STB (Page 2, paragraphs 0015, 0016).

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Thompson et al (US 2002/0188955 and hereafter referred to as "Thompson"), Medvinsky (US 2004/0194124) and Yun (6,915,531)

Thompson discloses a set top box (STB) (Figure 1, 12) comprising: a first port (Figure 2 (port is not numbered), Figure 6, Figure 7 – Tuner Port) capable of communicating with a first communications network (Figure 1, 16, Page 2, paragraph 0024), a second port (Figure 2 (port is not numbered), Figure 6, Figure 7 – Modem Port) capable of communication with a second communications network (Figure 1, 18) and capable of receiving information from the second communications network (Page 2,



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paragraph 0024); a tuner in communication with the first communications network and (Figure 1 (port is not numbered), Figure 6, Figure 7 – Tuner Port) capable of selecting a program or a tuner which receives a video signal from cable or satellite sources necessarily tunes to a program selected by a user (Figure 2, Page 1, paragraph 009, 0010, Page 2, paragraph 0024).

Medvinsnky discloses a headend determining if any unauthorized modifications exist on the STB (Figures 6-9).

Yun disclose a STB (Figure 4, 400B), which receives communications from a cable head end (Figure 4, 400A). Yun discloses that the STB is comprises a remote resource manager or POD capable of receiving instructions from a network from the cable headend (Column 9, lines 22-32). Yun discloses diagnosing the operation state of the STB (Figure 11).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farzana E. Hossain whose telephone number is 571-272-5943. The examiner can normally be reached on Monday to Friday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FEH  
4-25-06

A handwritten signature in black ink, appearing to read 'Vivek Srivastava', with a long horizontal flourish extending to the right.

VIVEK SRIVASTAVA  
PRIMARY EXAMINER